

Claims

We claim:

1. In a communication system comprising a plurality of access points and a
5 mobile station, wherein the mobile station is currently associated with a first
access point, a method comprising the steps of, at the first access point:
receiving a first transmission at a first signal quality from the mobile
station;
receiving a second transmission that indicates a second signal quality at
10 which a second access point is receiving transmissions from the mobile station;
comparing the first signal quality with the second signal quality; and
when the second signal quality is greater than the first signal quality,
signaling the second access point to initiate a handoff with the mobile station.
- 15 2. The method of claim 1 further comprising the step of transmitting to the
second access point any buffered packets destined to the mobile station.
3. The method of claim 1 wherein the second transmission is received from
the second access point.
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4. The method of claim 1 further comprising the step of receiving a third
transmission that indicates a third signal quality at which the mobile station is
receiving transmissions from the second access point.
- 25 5. The method of claim 4 wherein the step of signaling is performed when
the third signal quality exceeds a threshold.
6. The method of claim 4 wherein the third transmission further indicates a
fourth signal quality at which the mobile station is receiving transmissions from
30 the first access point.

7. The method of claim 6 wherein the step of signaling is performed when the third signal quality is greater than the fourth signal quality.
- 5 8. The method of claim 4 wherein the third transmission is received from the mobile station.
9. In a communication system comprising a plurality of access points and a mobile station, wherein the mobile station is currently associated with a first access point, a method comprising the steps of, at the first access point:
- 10 receiving a first transmission at a first signal quality from the mobile station;
- receiving a second transmission that indicates a second signal quality at which a second access point is receiving transmissions from the mobile station;
- 15 comparing the first signal quality with the second signal quality; and
- when the second signal quality is greater than the first signal quality, transmitting a disassociation message to the mobile station.
10. The method of claim 9 further comprising the step of receiving a third transmission that indicates a third signal quality at which the mobile station is receiving transmissions from the second access point.
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11. The method of claim 10 wherein the step of transmitting is performed when the third signal quality exceeds a predetermined threshold.
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12. The method of claim 10 wherein the second transmission is received from the second access point, and wherein the third transmission is received from the mobile station.

13. In a communication system comprising a plurality of access points and a mobile station, wherein the mobile station is currently associated with a first access point, a method comprising the steps of, at the first access point:

5 receiving at least one transmission that indicates a first signal quality at which the mobile station is receiving transmissions from the first access point, a second signal quality at which the mobile station is receiving transmissions from a second access point, and a third signal quality at which the second access point is receiving transmissions from the mobile station;

10 comparing the first signal quality with the second signal quality; comparing the third signal quality against a threshold; and when the second signal quality is greater than the first signal quality and when the third signal quality exceeds the threshold, signaling the second access point to initiate a handoff with the mobile station.

15 14. The method of claim 13 wherein the first signal quality and the second signal quality are received via at least a first transmission from the mobile station, and the third signal quality is received via a second transmission from the second access point.

20 15. In a communication system comprising a plurality of access points and a mobile station, wherein the mobile station is currently associated with a first access point, a method comprising the steps of, at a second access point:

receiving a transmission at a given signal quality from the mobile station; signaling the first access point with the given signal quality in which the transmission was received from the mobile station when the given signal quality exceeds a predetermined threshold; and

25 sending a transmission to the mobile station to disassociate with the first access point when a handoff trigger is received within a predetermined time period from the first access point.

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16. The method of claim 15 further comprising the step of increasing the predetermined threshold when the handoff trigger is not received from the first access point within the predetermined time period.
- 5 17. The method of claim 15 further comprising the step of transmitting a message to the mobile station to disassociate from the first access point.
18. The method of claim 15 further comprising the step of transmitting a disassociation message to the mobile station, wherein the disassociation message
10 is addressed as if it originated from the first access point.
19. The method of claim 15 further comprising the step of signaling the first access point to forward any buffered packets destined for the mobile station after the step of transmitting.